

IN THE CLAIMS

1. **(currently amended)** A method of transmitting data packets in an uplink from a plurality of source user equipments to a base station, the data packets being for onward transmission to a plurality of destination user equipments, the method comprising:

the base station determining a measure of a quality of service from the base station to the plurality of destination user equipments; and

scheduling uplink transmissions from the source user equipments to the base station in dependence on the measure of a quality of service from the base station to the plurality of destination user equipments,

wherein the scheduling is with greater priority for one of the plurality of destination user equipments whose downlink quality of service is relatively high than another of the plurality of destination user equipments whose downlink quality of service is relatively low, and

wherein the plurality of source user equipments transmit the data packets in the uplink to the base station for onward transmission to the plurality of destination user equipments.

2. **(canceled)**

3. **(currently amended)** The method according to claim 2, wherein the base station transmits an indication of the quality of service to a source user equipment, in the plurality of source user equipments.

4. **(currently amended)** The method according to claim 2, wherein the base station transmits to a source user equipment, in the plurality of source user equipments, an indication of a transmission format to be used by the source user equipment.

5. **(currently amended)** The method according to claim 1, wherein the base station determines ~~a~~the measure of ~~a~~the quality of service for each of the plurality of destination user equipments.

6. **(currently amended)** The method according to claim 5, wherein the base station determines a credit value for each destination user equipment, the credit value being based on the measures of the quality of service, and the base station transmits each credit value to ~~the~~a corresponding source user equipment, in the plurality of said source user equipments.

7. **(currently amended)** The method according to claim 6, wherein the credit value for said each destination user equipment is obtained by comparing the measure of the quality of service for ~~that~~one destination user equipment with measures of the quality of service for other destination user equipments, in the plurality of said destination user equipments.

8. **(currently amended)** The method according to claim 1, wherein a plurality of different measures of ~~a~~the quality of service are determined for each of the plurality of destination user equipments.

9. **(currently amended)** The method according to claim 1, wherein at least one of the following measures of the quality of service for packet delivery from the base station to a destination user equipment is determined:

- (a) throughput ratio
- (b) ratio of satisfied packets
- (c) base station buffer occupancy.

10. (currently amended) The method according to claim 8, wherein, for said each of the destination user equipments, the base station compares each of the measures of the quality of service for ~~that a~~ destination user equipment with the corresponding measures of the quality of service for other destination user equipments, in the plurality of the destination user equipments, to give a plurality of relative measures.

11. (previously presented) The method according to claim 10, wherein the base station obtains at least one of the following relative measures:

- (a) distance from average throughput ratio
- (b) distance from minimum throughput ratio
- (c) distance from minimum quality of service
- (d) distance from minimum buffer length.

12. (currently amended) The method according to claim 10, wherein the base station combines the plurality of relative measures for said each destination user equipment to give a single credit value for that destination user equipment.

13. (currently amended) The method according to claim 1, wherein a source user equipment, in the plurality of source user equipments, receives a credit value based on the measure of the quality of service, and determines a time and/or rate of packet transmission based on the credit value.

14. (previously presented) The method according to claim 13, wherein the source user equipment determines the time and/or rate of packet transmission based additionally on a measurement of radio channel conditions.

15. (previously presented) The method according to claim 13, wherein the source user equipment determines the time and/or rate of packet transmission based additionally on the type of service.

16. (currently amended) The method according to claim 1, wherein the uplink transmissions are scheduled using rate scheduling.

17. (currently amended) The method according to claim 1, wherein the uplink transmissions are scheduled using hybrid rate-time scheduling.

18. (currently amended) The method according to claim 1, further comprising switching from scheduling the uplink transmissions using one of rate scheduling and hybrid rate-time scheduling to scheduling the uplink transmissions using the other of rate scheduling and hybrid rate-time scheduling.

19. (currently amended) The method according to claim 1, wherein ~~the a~~ rate of an uplink transmission is varied by adjusting ~~the a~~ modulation and coding scheme level.

20. (currently amended) The method according to claim 1, wherein ~~the a~~ rate of an uplink transmission is varied by adjusting ~~the~~ intervals at which the uplink transmissions take place.

21. **(currently amended)** The method according to claim 1, wherein a source user equipment, in the plurality of source user equipments, receiving an indication of a good quality of service transmits data packets to the base station at a lower rate than would otherwise be the case.

22. **(currently amended)** The method according to claim 1, wherein a source user equipment, in the plurality of source user equipments, receiving an indication of a poor quality of service transmits data packets to the base station at a higher rate than would otherwise be the case.

23. **(currently amended)** The method according to claim 1, wherein a source user equipment, in the plurality of source user equipments, receives credit values based on measures of the quality of service, and stores a history of the credit values.

24. **(currently amended)** The method according to claim 23, wherein a source user equipment, in the plurality of source user equipments, with a worsening history of credit values transmits data packets to the base station at a higher rate than would otherwise be the case.

25. **(currently amended)** The method according to claim 23, wherein a source user equipment, in the plurality of source user equipments, with an improving history of credit values transmits data packets to the base station at a lower rate than would otherwise be the case.

26. (previously presented) The method according to claim 1, wherein the base station operates a scheduling mechanism for downlink transmissions.

27. (previously presented) The method according to claim 1, wherein the base station transmits the data packets directly to the plurality of destination user equipments.

28. (previously presented) The method according to claim 1, wherein the base station transmits the data packets to the plurality of destination user equipments via a network.

29. **(currently amended)** The method according to claim 46, wherein a new credit value is periodically determined and sent to the source user equipment, in the plurality of said source user equipments.

30. **(currently amended)** A base station for receiving data packets in an uplink from a plurality of source user equipments for onward transmission to a plurality of destination user equipments, the base station comprising:

a determining unit which determines a measure of a quality of service from the base station to the plurality of destination user equipments;

a producing unit which produces a credit value based on the measure of the quality of service from the base station to each of the plurality of destination user equipments; and

a transmitting unit which transmits the credit value to a corresponding one of the plurality of source user equipments,

wherein scheduling based on the credit value is performed with greater priority for one of the plurality of destination user equipments whose downlink quality of service is

relatively higher than another of the plurality of destination user equipments whose downlink quality of service is relatively lower.

31. **(currently amended)** A base station for receiving data packets in an uplink from a plurality of source user equipments for onward transmission to a plurality of destination user equipments, the base station comprising:

a determining unit which determines a measure of a quality of service from the base station to the plurality of destination user equipments;

a determining unit which determines, based on the measure of a quality of service from the base station to the plurality of destination user equipments, a transmission format to be used by a user equipment, in the plurality of source user equipments, in scheduling uplink transmissions from the user equipment to the base station; and

a transmitting unit which transmits to the user equipment an indication of the transmission format to be used by the user equipment,

wherein scheduling to the plurality of destination user equipments is performed with greater priority for one of the plurality of destination user equipments whose downlink quality of service is relatively higher than another of the plurality of destination user equipments whose downlink quality of service is relatively lower.

32. **(currently amended)** A user equipment for transmitting data packets in an uplink to a base station for onward transmission to a plurality of destination user equipments, the user equipment comprising:

a receiving unit which receives from the base station a credit value, the received credit value being an indication of ~~the a~~ quality of service from the base station to a destination user equipment, in the plurality of destination user equipments; and

a scheduling unit which schedules uplink transmissions from the user equipment to the base station in dependence on the received credit value,

wherein the scheduling is with greater priority for one of the plurality of destination user equipments whose downlink quality of service is relatively higher than another of the plurality of destination user equipments whose downlink quality of service is relatively lower.

33. (CANCELLED)

34. **(currently amended)** A communications system comprising:

a base station for receiving data packets in an uplink from a plurality of source user equipments for onward transmission to a plurality of destination user equipments, the base station comprising:

a determining unit which determines a measure of a quality of service from the base station to a destination user equipment, in the plurality of destination user equipments;

a producing unit which produces a credit value based on the measure of the quality of service; and

a transmitting unit which transmits the credit value to a source user equipment; and

~~a the plurality of source user equipments, each said user equipment being~~ adapted to transmit data packets in an uplink to ~~a the~~ base station for onward transmission to ~~a the~~ plurality of destination user equipments, and each said source user equipment, in the plurality of said source user equipments, comprising:

a receiving unit which receives from the base station said credit value, the credit value being an indication of the quality of service from the base station to a destination user equipment, in the plurality of said destination user equipments; and

a scheduling unit which schedules uplink transmissions from the user equipment to the base station in dependence on the credit value.

35. (currently amended) A communications system comprising:

a base station for receiving data packets in an uplink from a plurality of source user equipments for onward transmission to a plurality of destination user equipments, the base station comprising:

a determining unit which determines a measure of a quality of service from the base station to the plurality of destination user equipments;

a determining unit which determines, based on the measure of a quality of service, a transmission format to be used by a source user equipment, in the plurality of source user equipments in scheduling uplink transmissions from the source user equipment to the base station; and

a transmitting unit which transmits to the source user equipment an indication of the transmission format to be used by the source user equipment;

~~a~~ the plurality of said source user equipments, each ~~said user equipment~~ being adapted to transmit data packets in an uplink to ~~a~~ the base station for onward transmission to ~~a~~ the plurality of said destination user equipments, and each said source user equipment comprising:

a receiving unit which receives from the base station said indication of

the transmission format; and

a scheduling unit which schedules the uplink transmissions from ~~the~~

each said source user equipment to the base station,

wherein the scheduling is with greater priority for one of the plurality of destination user equipments whose downlink quality of service is relatively higher than another of the plurality of destination user equipments whose downlink quality of service is relatively lower.